

APPENDICITIS AND TETANY.

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ON Tuesday, June 23, 1908, a young woman, 19 years old, was referred to my service at the Methodist Episcopal Hospital by her physician, Dr. E. J. Kenny. She had been in excellent health until the midnight immediately preceding her admission. During the evening she had devoured a vicious mixture of foods including clams, soft shell crabs, ice-cream, and peanuts. She retired about eleven o'clock and one hour later was seized with violent pain in the right iliac region which rapidly extended over the entire lower abdomen. Vomiting was repeated several times during the night, affording no relief for the pain. Dr. Kenny saw her in the early morning, administered a mixture containing one grain of opium and ordered an enema which was effectual. When he saw her at 1 P.M. he made the diagnosis of acute appendicitis from tenderness over the right iliac region (not definitely localized), the temperature 102° F. and the pulse 92. He referred her to me as a very acute case and the ambulance was dispatched for her promptly. Upon the arrival of the ambulance surgeon at 2.15 P.M. she complained of pains in her hands and feet, and her thumbs were tonically opposed to the palms. Any passive motion of thumbs was accompanied by great pain. The slightly extended feet were exquisitely sensitive on flexion. The jolting of the ambulance gave her great pain in the extremities which attracted her attention at this time more than any abdominal discomfort. Upon her arrival at the hospital she was examined by the House-Surgeon, Dr. F. P. Keil, who at once made a diagnosis of gastro-intestinal tetany, reporting this and a leucocyte count of 23,250, with 78 per cent. polymorphonuclear leucocytes at 3 P.M. I saw the patient at 3.30 P.M. when she presented the typical picture of gastro-intestinal tetany. Her temperature had risen to 103.4°, pulse 98. The chest was negative. The abdomen was generally tender over its lower half, with somewhat exaggerated tenderness

over the centre of the right iliac region. I found the right rectus very slightly rigid, although this opinion was dissented from by Drs. Keil and Kenny and my assistant, Dr. Durham.

As abdominal pain and tenderness are usual in gastro-intestinal tetany, and as the typical signs of appendicitis were not especially marked it became a question whether or not abdominal section should be undertaken. The leucocytosis was cited as a reason for exploration. Thereupon it was recalled that such a blood phenomenon might be possible with gastro-intestinal toxæmia so profound as to cause tetany, although the literature has thus far been silent on this point.

The abdomen was opened through the right rectus incision. The examining finger found a thickened appendix hanging over the pelvic brim. After enlarging the peritoneal incision it was delivered,—distorted, greenish, succulent from base to tip. It was typically removed, the base being cauterized with carbolic acid and inverted through a purse-string of catgut. The stump of the meso-appendix was sutured as a fortifying pad over the remaining dimple, the suture being introduced distally to the ligature previously applied to the meso-appendix. This method long ago suggested and for some years practised by the writer, not only strengthens the intestinal wall and inverts the raw, cut surface of the meso-appendix, but also avoids the possibility of traction releasing the original ligature. One case of secondary hemorrhage has come under our observation where the suture and the meso-appendix ligature were tied together after the manner largely used.

Upon cross section the appendix was found to have gangrenous mucosa, and necrosing muscularis and serosa. It was filled with liquid faeces and pus.

The microscopic picture as reported by Dr. Dexter, Pathologist, is as follows: "Round cells of inflammation, isolated and partly broken down connective-tissue cells, adipose, and blood cells are in various stages of disintegration. Portions of blood-vessel walls and much detritus can be made out. Relations of the various tunics of the appendix and relations of the morphological elements to one another are almost entirely destroyed."

The patient has made an uneventful recovery, the temperature touching normal on the day following that of operation.

The wound healed per primam. The symptoms of tetany gradually disappeared during the night succeeding the day of operation and did not recur. As no effort to evacuate her bowels was made until the third day, the presumption that the destructive inflammation of the appendix caused the symptoms of tetany seems reasonable.